

# NASA's John C. Stennis Space Center 2016 Mission Brochure



#### National Aeronautics and Space Administration

John C. Stennis Space Center Office of Communications Stennis Space Center, MS 39529-6000

800-237-1821 or 228-688-3333

www.nasa.gov/centers/stennis

www.nasa.gov

The record of excellence is continuing at Stennis Space Center as we test engines for NASA's new Space Launch System Program, which will carry humans deeper into space than ever before and eventually to Mars.

-Rick Gilbrech

# SEVEN-AND-ONE-HALF miles of canal waterways, featuring a lock-and-dam system, are used at Stennis to transport large rocket stages and cryogenic barges to and from the Gulf of Mexico via the Pearl River.

# Sennis is home to the LARGEST concentration of oceanographers in the world.

MORE THAN 40 Federal, state, academic and private organizations and several technology-based companies, including the U.S. Navy, conduct business at Stennis. The entities share the cost of owning and operating the Mississippi facility, making it more cost-effective for each one to accomplish its independent mission.

Tree-cutting for construction of Stennis facilities began MAY 17, 1963.

NASA first called its rocket engine test facility Mississippi Test Operations, then Mississippi Test Facility and National Space Technology Laboratories. On May 20, 1988, President Ronald Reagan signed an official executive proclamation designating the NASA site in honor of

U.S. SEN. JOHN C. STENNIS of Mississippi.

NASA announced plans on OCTOBER 25, 1961, to open a rocket engine test facility in Hancock County.

In April 2008, the American Institute of Aeronautics and Astronautics named Stennis a

# HISTORIC AEROSPACE SITE.

# MAJOR HURRICANCES, not to mention numerous tropical storms, have impacted Stennis –

Hurricane Betsy (1965) Hurricane Camille (1969) Hurricane Katrina (2005)

# Overview

#### stennis space center

or five decades and counting, Stennis Space Center in south Mississippi has served as NASA's primary rocket propulsion testing ground. Today, the center provides propulsion test services for NASA and the Department of Defense, as well as the commercial sector. It is home to NASA's Rocket Propulsion Test Program, which manages all of the agency's propulsion test facilities. It also has grown into a "federal city" that hosts more than 40 resident agencies and has become a leader in promoting the use of NASA science research to address community issues.

The center was established in the 1960s to flight-certify all first and second stages of the Saturn V rocket for the Apollo manned lunar landing program. From 1975 to 2009, its primary mission was to test the main engines that propelled space shuttle vehicles on their eight-and-one-half-minute ascent into orbit. Stennis now is testing RS-25 engines that will help to power the core stage of NASA's new Space Launch System. The center also is working with commercial companies, such as SpaceX, to test the engines and components they will need in order to achieve their own space missions.



An aerial view shows the large historic test stands at Stennis Space Center – (I to r) A-1, A-2 and B-1/B-2 – as well as the 66-million-gallon resevoir that supplies the hundreds of thousands of gallons of water needed during a single engine test.

# History

stennis space center

hen President John F. Kennedy made his historic
1961 announcement that the United States would put
humans on the moon by the end of that decade, a site
was needed to test the powerful engines and rocket
stages that would propel them on the journey.

For NASA officials, the rough terrain of Hancock County, Miss., provided the five things necessary to test the large Apollo engines and stages: isolation from large population centers, water and road access for transportation needs, available public utilities, supporting local communities and a climate conducive to year-round engine testing. In May 1963, workers felled the first tree in a daunting construction project. The effort marked the largest construction project in the state of Mississippi and the second largest in the United States at that time.

Despite a pressing schedule, occasional setbacks and even the disruption of Hurricane Betsy in 1965, construction workers prevailed in their tasks. On April 23, 1966, a Saturn V second stage prototype was test-fired on the A-2 Test Stand. With the shake, rattle and roar of the test, south Mississippi was blasted into the space age.

Until 1972, Stennis test-fired first and second stages of the Saturn V rocket for the Apollo Program. Stennis Space Center then was called on to test main engines for NASA's new reusable spacecraft, the space shuttle. From 1975 to 2009, Stennis Space Center tested every main engine used to power 135 space shuttle missions. Not a single mission failed because of engine malfunction.

Stennis now is testing RS-25 rocket engines for use on NASA's new Space Launch System, being developed to carry humans deeper into space than ever before, including to an asteroid and Mars. Stennis also will test the SLS core stage, which will involve firing a configuration of four RS-25 engines simultaneously. At the same time, the center is partnering with various commercial companies to test engines and components for their space ventures.

Into its sixth decade of NASA support, Stennis remains focused on building upon its rich history as the nation's largest rocket engine test facility – a place where space dreams are powered into reality.



Beginning in 1963, Stennis was the site of the largest construction project in the state of Mississippi – and the second largest in the United States at the time. All of the effort built to a climactic moment – April 23, 1966 – the first test of a Saturn V rocket stage. The site would go on to test additional rocket stages that carried Apollo Program astronauts on missions to the moon.





# Propulsion Testing

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ince the 1960s, Stennis Space Center has grown into the nation's largest rocket engine test site, featuring facilities collectively valued at more than \$2 billion and considered national assets. State-of-the-art facilities include A, B and E complexes, where propulsion tests can be conducted on rocket stages, full-scale engines and engine components.

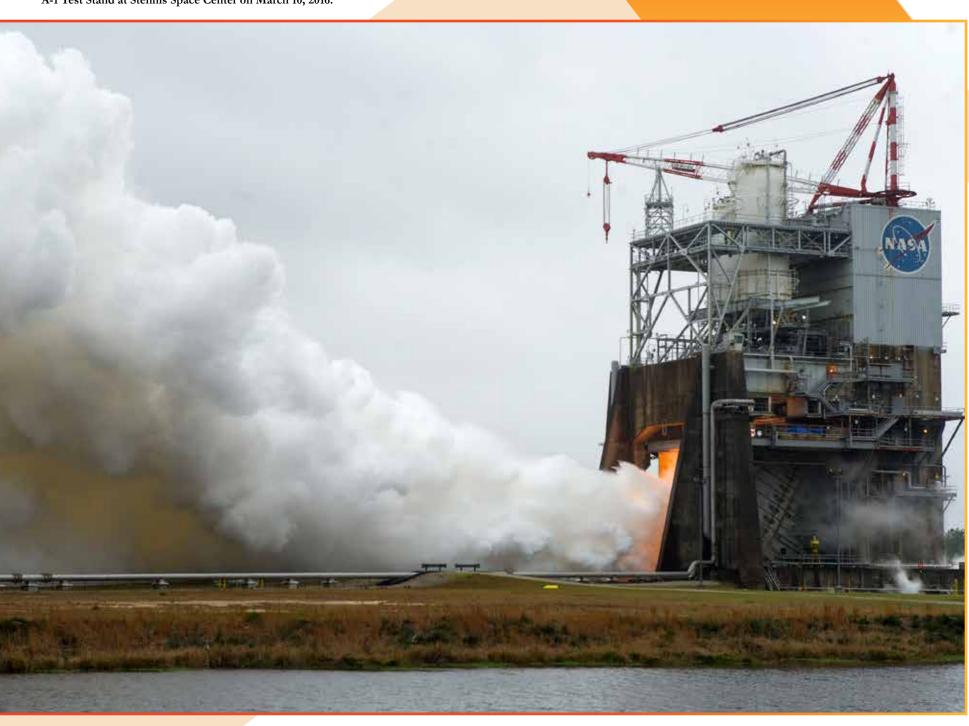
The A Test Complex at Stennis Space Center consists of two single-position, vertical-firing test stands designated A-1 and A-2, both built in the 1960s. The stands have been used to conduct full flight-stage and engine component tests, as well as single-engine tests at sea level and simulated altitudes. The A-1 stand is now testing RS-25 rocket engines, which will power the core stage of NASA's new Space Launch System (SLS), being developed to carry humans deeper into space than ever before.

The B Test Complex at Stennis features a dual-position, vertical, static-firing test stand designated B-1/B-2, also built in the 1960s. First stages of the Apollo Saturn V rocket were fired at the test stand from 1967 to 1970. Stennis now leases the B-1 test position to Aerojet Rocketdyne for testing RS-68 engines. Meanwhile, the B-2 position is being modified to test the SLS core stage, which will involve installing the stage on the stand and firing four RS-25 rocket engines simultaneously.

The E Test Complex at Stennis was constructed in the late 1980s and early 1990s. This three-stand complex includes seven separate test cells capable of supplying ultra high-pressure gases and cryogenic fluids, using a variety of rocket propellants. The complex offers particularly versatile options for testing engines and components, including engines and components for commercial companies, such as Space Exploration Technologies Corp. (SpaceX) and Blue Origin.

Various infrastructures support the Stennis test complexes. Test stands are linked by a seven-and-one-half-mile canal system currently used primarily for transporting liquid propellants. Additional features include test control centers, data acquisition facilities, a large high-pressure gas facility, an electrical generation plant, and a high-pressure industrial water facility served by a 66-million gallon reservoir.

NASA conducts the first test of an RS-25 flight engine on the A-1 Test Stand at Stennis Space Center on March 10, 2016.



# Technology Transfer

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hen someone mentions
NASA, it is natural to
think of space and space
exploration, such as
the International Space
Station or planet flybys or robotic rovers on the
Martian surface. One does not always think of
common household items or medical devices and
procedures or sports – but you should.

Transferring technologies developed from the space program to daily life is a major focus of NASA – and Stennis Space Center. Each year, the agency highlights dozens upon dozens of technologies first developed for use by NASA but now being used in all areas of life – and the list always includes some developed by Stennis.

The Advanced Technology and Technology Transfer Branch develops and licenses state-of-the-art components, sensors, processes and software. As expected, some of the Stennis technologies are highly specialized. However, many have the potential for broad use, such as an inexpensive, hermetically sealed valve that could be incorporated into everything from storage tanks to oil refineries; smart sensors that harvest energy from the environment to help make homes and cities safer and more efficient; and autonomous systems that could detect and identify the causes of faults in critical infrastructure such as water systems and power plants.

In all efforts, the goal is the same – to ensure the discoveries of space become a benefit to society.

For more, visit:

NASA site – http://technology.nasa.gov/ Stennis site – http://technology.ssc.nasa.gov



NASA mechanical engineer Bruce Farner (l) demonstrates a desktop prototype of his patented conical seat shutoff valve for Kimball Marshall from Alcorn State University in Alcorn, Miss. The valve is just one of numerous Stennis Space Center-developed technologies that have practical use in the day-to-day world.



# Outreach/Education

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tennis Space Center conducts a variety of outreach and education activities aimed at informing the public and its leaders – current and future – about the nation's space program and the range of work performed at the facility to support that mission.

Through its Office of Communications, Stennis supports special events throughout the region to provide information and hands-on activities for adults and children alike. Each year, representatives visit the Mississippi Capitol to share the Stennis story with elected officials. The center also hosts community leaders from Louisiana and Mississippi for an annual briefing with the Stennis director.

NASA's Speakers Bureau Program at Stennis regularly provides scientists, engineers and other employees for lectures and presentations to civic organizations and schools throughout Mississippi and southeast Louisiana. Topics of interest include RS-25 rocket engine testing work, aerospace engineering, propulsion systems technology, remote sensing applications, technology transfer, the benefits of space program "spinoff" technologies in society, NASA education programs and the economic impact of Stennis Space Center.

Media and social media members are frequent visitors to Stennis. The site also periodically hosts open house events, providing the general public an opportunity to visit the center that consistently ranks as the best place to work in NASA and one of the best among all federal agencies.

Meanwhile, there is no mistaking the goal of the Stennis Office of Education – to inspire and enable a new generation of science, engineering and space leaders. To that end, the Stennis education team focuses squarely on promoting science, technology, engineering and mathematics (STEM) training, learning and careers. The aim is emphasized and advanced through a variety of efforts and initiatives.

The Stennis office supports a range of special events, all focusied on inspiring students to pursue studies and careers that will make them supporters and leaders of the American space program of tomorrow. It also continues to provide professional development to pre-service, in-service and informal educators of local, regional and virtual audiences around the world.

The Stennis office provides annual support to FIRST® LEGO® and FIRST® Robotics activities, an invaluable training ground for students. For higher education students and teachers, the office offers a wide range of fellowship, internship and study programs. All involve STEM activities and place a heavy emphasis on introducing participants to real-life research and work environments.



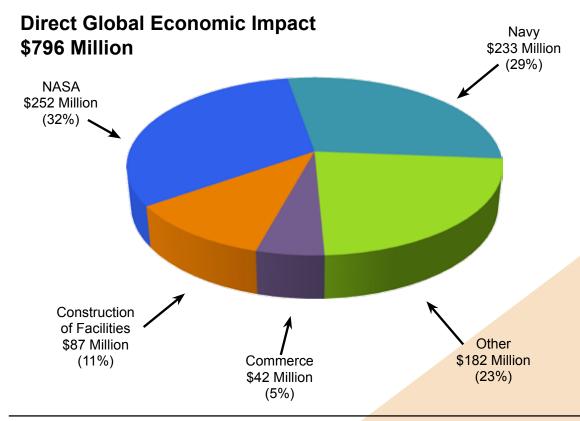


Stennis Space Center outreach and education efforts include introducing area teachers to NASA classroom resources (top left photo), engaging students in science presentations (top right photo) and providing young people with hands-on learning activities (bottom photo).



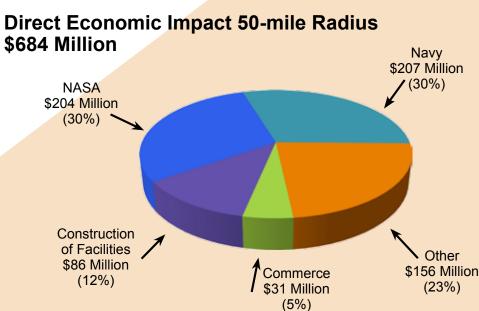
# 2015 Economic Impact

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Stennis Space Center is a major contributor to the Gulf Coast economies of Louisiana and Mississippi. It spends almost three-fourths (\$0.74) of every dollar within a four-county/parish, 50-mile-radius area. It also is responsible for contributing more than \$1.06 billion to the economies of that region, which include Hancock, Harrison and Pearl River counties in Mississippi and St. Tammany Parish in Louisiana. Eighty-nine percent of all Stennis employees reside in the four counties and parish.

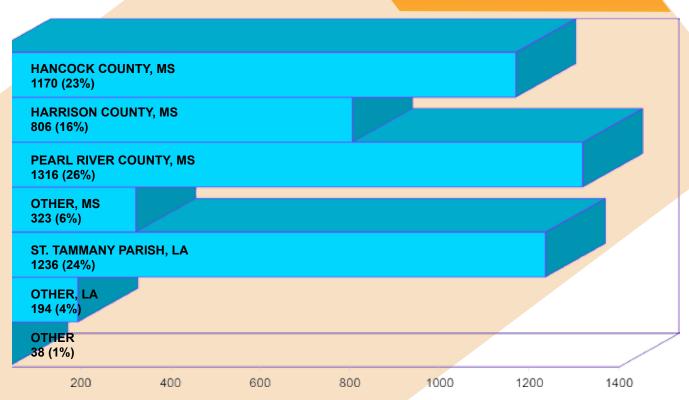
\*Study by Dr. Alan Barefield of Mississippi State University, February 2016.



### Workforce\*

- NASA and contractors 1,872
   (Stennis federal civil servants, 438; contractors and other, 1,434)
- Department of Navy and contractors 1,936
- Department of Commerce and contractors 184
- Other Resident Agencies 1,094
  - \*Totals as of Sept. 30, 2015

### Residential Distribution of Stennis Personnel



# **Employee Skills**

- Scientific/Engineering 30%
- Business/Professional 27%
- Technical/Crafts/Production 26%
- Clerical 6%
- Other 11%

# **Education Levels (All Employees)**

- Doctorate 4%
- Masters 14%
- Bachelors 32%
- Associates 12%
- Some College 17%
- High School Diploma 20%
- Other 1%

# INFINITY Science Center

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sitors to the 72,000-square-foot INFINITY
Science Center enter a world of discovery,
from the depths of the oceans to the farthest
reaches of outer space. View up-close the work
conducted at Stennis Space Center, the nation's
largest rocket engine test facility and a unique federal city of
more than 40 agencies and organizations.

Exhibits and daily live demonstrations at INFINITY complement or directly align with state and national formal education curriculum standards. A few of the informative and interactive experiences added recently include: "Wings over INFINITY," an interactive exhibit about aerospace design and remote control model airplanes; the museum's "Biome Boardwalks" through upland forest and lowland swamps and wetlands; "Hurricanes," a look back at Katrina, especially NASA/Stennis' rescue-and-recovery efforts; and a seven-mile guided tram down the Possum Walk Trail.

Look to the stars in the Space Gallery, and discover how space travel has evolved over the past 50 years. See the space suit Biloxi, Miss., native Fred Haise wore during the historic Apollo 13 mission. Explore life aboard the International Space Station in a full-scale ISS module. Discover NASA's plans for astronauts to travel deeper in space than ever before using its new launch vehicle currently in development, the Space Launch System, which will carry the Orion spacecraft.

Experience the shake, rattle and roar of a real rocket engine test or take a journey on the motion simulator ride. Take your photo in a space suit on the surface of Mars or with the Curiosity rover.

Join a bus tour of Stennis Space Center and see the massive test stands used to test the engines that propelled humans to the moon and powered each of the space shuttle missions. Today, the stands are testing the engines for the Space Launch System, as well as commercial companies.

Experience all this and more when visiting INFINITY Science Center, where discoveries are endless! For more info, visit: www.visitinfinity.com.









# Stennis Facts

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# 13,800 acres

All Stennis facilities are located within a 13,800-acre "fee" area owned by the federal government. The fee area is surrounded by a 125,000-acre noise buffer zone, designated as a national asset.

# Special Boat Team TWENTY-TWO

The U.S. Navy conducts training for its Special Boat Team TWENTY-TWO special ops riverine force on Stennis Space Center waterways.

## Path to the moon

Rocket scientist Dr. Wernher von Braun affirmed the importance of Stennis Space Center in its early years by stating, "I don't know yet what method we will use to get to the moon, but I do know that we have to go through Mississippi to get there!"

# 27

Twenty-seven first- and second-stage Saturn V rocket boosters for NASA's Apollo Program were tested at Stennis, including those that propelled humans to the moon on seven lunar missions from 1969 to 1972.

# April 23, 1966

Stennis engineers conducted the first rocket engine test at the facility on April 23, 1966, a 15-second firing of a Saturn V second stage prototype (S-II-C) on the A-2 Test Stand.

# 2,475 years of experience

During the Apollo Program years, Stennis engineers conducted 43 test firings. The accumulated experience of the test team members amounted to 2,475 years of rocket engine test expertise.

# "3 ... 2 ... 1"

Stennis engineers conducted the first full-duration test of a space shuttle main engine June 24, 1975. The final space shuttle main engine test was conducted July 29, 2009.

### 520 seconds

Space shuttle main engines at Stennis were typically test fired for 520 seconds, the same amount of time the engines fired during an actual flight.

# Ready to fly

In April 1978, Stennis conducted the first test of the Space Shuttle Main Propulsion Test Article with three main engines configured as on an actual flight. The engines were fired simultaneously on the B-2 Test Stand to prove the propulsion system flightworthy.

# RS-68 testing

In 1998, Stennis partnered with Pratt & Whitney Rocketdyne (now Aerojet Rocketdyne) to test RS-68 engines used for Delta IV rocket launches. It marked the first long-term commitment to allow Stennis engine test facilities to be used for commercial purposes. RS-68 engines continue to be tested on the B-1 Test Stand.

# Space Launch System

Two test stands are currently involved in testing for NASA's new Space Launch System (SLS). RS-25 engines to power the SLS core stage are being tested on the A-1 Test Stand. The B-2 Test Stand is preparing to test the SLS core stage with the simultaneous firing of four RS-25 engines.

# First flight engine test

The first test of an RS-25 flight engine was conducted on the A-1 Test Stand at Stennis on March 10, 2016. The engine is scheduled to fly on Exploration Mission-2 of NASA's new Space Launch System, which will carry humans deeper into space than ever before.

# Timeline

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May 25, 1961. President John F. Kennedy challenges the United States to send humans to the moon and return them safely by the end of the decade.



April 23, 1966 ... The space age arrives in Hancock County as operators at NASA's Mississippi Test Facility conduct the first-ever Saturn V rocket booster (S-II-T) test on the A-2 Test Stand.

March 1, 1971 ... As the Apollo Program ends, NASA assigns responsibility for testing space shuttle main engines to the Mississippi Test Facility.

May 20, 1988 .. National Space Technology Laboratories is renamed the John C. Stennis Space Center to honor the longtime U.S. senator from Mississippi who was instrumental in establishment and growth of the rocket engine test facility.

July 29, 2009 ... The final space shuttle main engine is tested at Stennis Space Center, ending 34 years of testing flight engines for 135 shuttle missions.



Aug. 20, 2012 ... Stennis marks a historic moment with the first instance of two female engineers conducting rocket engine tests on the same day at the facility.



March 10, 2016 ... NASA successfully conducts test firing of RS-25 rocket engine No. 2059 on the A-1 Test Stand at Stennis. The hot fire marks the first test of an RS-25 flight engine for NASA's new Space Launch System vehicle and represents a major step forward in the journey to Mars

Dec. 5, 2014 ... NASA marks a major milestone on its journey to Mars with the launch of the Orion spacecraft on its first voyage to space. During its 4.5-hour mission, Orion traveled farther than any spacecraft designed for astronauts has been in more than 40 years. The launch was powered by a trio of RS-68 rocket engines tested by Aerojet Rocketdyne on the B-2 Test Stand at Stennis Space Center.

Oct. 25, 1961

... NASA publicly announces plans to build a rocket engine test facility in Hancock County. On Dec. 18, the facility is officially named Mississippi Operations.

May 17, 1963 ... Construction

rocket engine test facility.

workers cut the first tree to start

clearing an area for NASA's new

July 29, 1969 ... Astronaut Neil Armstrong becomes the first human to set foot on the moon. His Apollo 11 mission is powered by first- and second-stage Saturn V rocket boosters tested at the Mississippi Test Facility.

Dec. 30, 1991 ... NASA designates Stennis as the Center of Excellence for large propulsion system testing.





Oct. 25, 2011 ... Stennis culminates a vearlong celebration of its 50th anniversary on the day in 1961 that NASA publicly announced plans to build the rocket engine test facility in south Mississippi. The day's activities included burial of a time capsule to be opened on the center's 100th anniversary in 2061.



Jan. 9, 2015 ... The new year gets off to a blazing start as NASA conducts a test of the RS-25 engine on the A-1 Test Stand at Stennis Space Center. The RS-25, formerly the space shuttle main engine, fired up for 500 seconds, representing the first hotfire of an RS-25 engine since the end of space shuttle main engine testing in 2009. Four RS-25 engines will power NASA's new Space Launch System on future missions. including to an asteroid and Mars.



May 19, 1975 ... The first-ever space shuttle main engine is test-fired at then-named National Space Technology Laboratories.



July 26, 2011 ... Stennis

successful ignition test of the

next-generation J-2X rocket

engine. The test launches the

third major test series on the

operators conduct a

**Explore more historical moments** by visiting the Stennis Space Center chronology online at: http://go.usa.gov/cGtPk

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(Top photo) NASA Administrator Charles Bolden speaks to NASA Advisory Council members during the group's Jan. 14 meeting at Stennis Space Center. Stennis Director Rick Gilbrech is seated to the right.

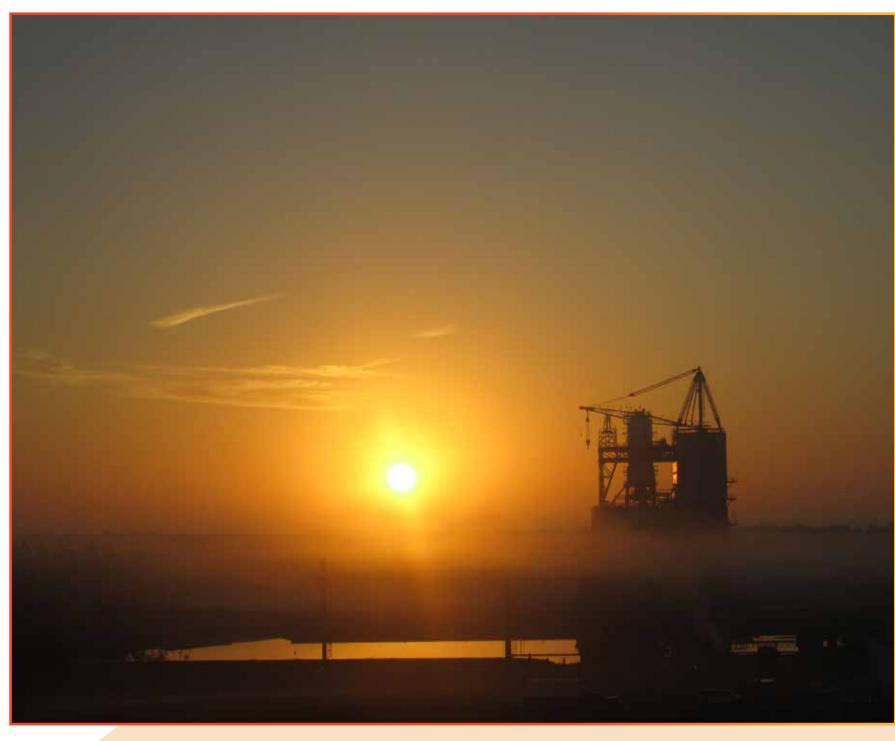
(Top right photo) Apollo 13 astronaut Fred Haise speaks to Mississippi legislators during annual NASA Day at the State Capitol events on March 18.

(Bottom right photo) Former Stennis Director Jerry Hlass speaks at an April 8 ceremony naming a site road in his honor.





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(Above photo) A March 31 photo shows the sun rising above the A-2 Test Stand at Stennis.
(Right photo) Stennis Space Center employees install a 96-inch valve on March 26 as part of an ongoing project to upgrade the high-pressure industrial water system that serves the site's large rocket engine test stands.



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(Top photo) Middle-school students participate in hands-on activities during a Stennis Space Center education outreach effort in Tupelo on Oct. 5.

(Top right photo) NASA Deputy Administrator Dava Newman talks with social media representatives during a visit to Stennis Space Center as part of an RS-25 engine test on Aug. 13.

(Bottom right photo) Kids enjoy a NASA exhibit during NASA Week in NOLA, held June 30 through July 5 in conjunction with the 2015 New Orleans Essence Music Festival.





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(Left photo) Astronaut Jeanette Epps visits with a young girl Aug. 13 during a day of activities that culminated with a successful test of an RS-25 rocket engine.

(Right photo) A structural steel frame is lifted into place on the B-2 Test Stand in preparation for Space Launch System core stage testing.

(Bottom photo)
Operators at the
E-2 Test Stand at
Stennis conduct a
test of the oxygen
preburner component being developed by SpaceX for
its Raptor rocket
engine, which is
being built to power flights to Mars.



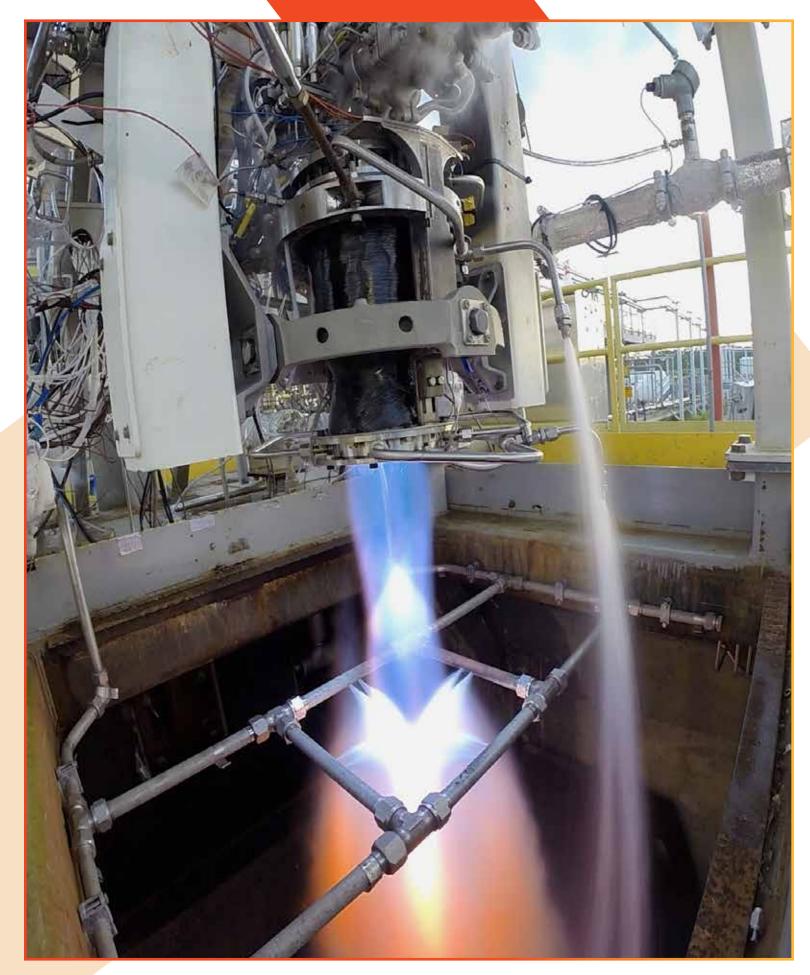


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(Top photo) NASA's Pegasus barge arrives at Stennis on Aug. 13. Pegasus barge was built in 1999 to transport space shuttle external tanks. It has been modified to carry the Space Launch System core stage between NASA sites in Louisiana, Mississippi, Alabama and Florida.

(Right photo) NASA engineers conduct a test of a methane-fueled 2K thruster on the E-3 Test Stand at Stennis Space Center in early May. Engineers tested the thruster over a four-day span May 6-9.



# Websites/Apps

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#### **WEBSITES**

#### www.nasa.gov

Gain access to the NASA Image of the Day, mission information, video feeds, NASA blogs and much more regarding the American space program.

#### www.nasa.gov/exploration/systems/sls/

Read the latest about NASA's deep-space exploration plans.

#### www.nasa.gov/centers/stennis/home/index.html

Gain access to the latest news and information about Stennis Space Center.

#### www.nasa.gov/centers/stennis/education/index.html

Access information about NASA education programs and opportunities.

#### http://usajobs.gov

Search a database of job vacancies at all federal agencies.

#### http://intern.nasa.gov

Learn about NASA student research opportunities, internships, fellowships and scholarships.

#### http://nasajobs.nasa.gov

Learn about NASA job vacancies and career development opportunities.

#### http://nasajobs.nasa.gov/studentopps/default.htm

Gather information on NASA student programs and opportunities.

#### http://www.nasa.gov/centers/stennis/about/jobs/index.html

Access information about job vacancies at major resident agencies located at Stennis Space Center

#### **APPS**

### http://www.nasa.gov/connect/apps.html

#### **NASA Spinoff**

Learn about NASA technology that can be found in commercial products.

#### **NASA 3DV**

Learn about NASA's Deep Space Exploration project.

#### NASA APP

Access a huge collection of the latest NASA content, including images, videos on-demand, mission information, news and feature stories, International Space Station sighting opportunities, satellite tracking and much more.

#### **NASA Television**

Bring live and on-demand TV programming to your phone.

#### Spacecraft 3D

Learn about and interact with a variety of spacecraft.

#### NASA Be a Martian

Experience Mars as if you were there!

#### Space Images

Access stunning space videos and images.

#### NASA Visualization Explorer

NASA Visualization Explorer won the National Science Foundation and Popular Science People's Choice Award for Games and Apps at the 2015 Vizzies!

#### Earth as Art

Access NASA events and quirky trivia facts that happened each day of the year.

# Social Media

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http://www.nasa.gov/socialmedia/



https://www.facebook.com/NASA https://www.facebook.com/NASAStennis



GOOGLE PLUS
https://plus.google.com/+NASA/posts



FOURSQUARE
https://foursquare.com/nasa



FLICKR https://www.flickr.com/photos/nasahqphoto/



INSTAGRAM
https://instagram.com/nasa/
https://instagram.com/nasastennis/



https://www.linkedin.com/company/nasa



http://www.slideshare.net/NASA http://www.slideshare.net/nasastennis

**SLIDESHARE** 



SOUNDCLOUD https://soundcloud.com/nasa



TWITTER
https://twitter.com/nasa
https://twitter.com/NASAStennis



USTREAM http://www.ustream.tv/nasahdtv



VINE https://vine.co/nasa



YOUTUBE
https://www.youtube.com/NASA
https://www.youtube.com/c/NASAStennis

# Resident Agencies

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### Department of Commerce

National Data Buoy Center
National Oceanic & Atmospheric Administration (NOAA)
National Weather Service (NWS)
NOAA National Center for Environmental Information (NCEI)
NOAA National Marine Fisheries Service

### Department of Defense

Army Corps of Engineers

Commander, Naval Meteorology & Oceanography Command (CNMOC)

Naval Oceanographic Office (NAVO)

Naval Research Laboratory (NRL)

Navy Detachment Stennis

Navy Facilities Southeast

Navy Office of Civilian Human Resources - SSC Center

Navy Small Craft Instruction and Technical Training School (NAVSCIATTS)

### Department of Energy

Navy Special Boat Team 22

Strategic Petroleum Reserve

### Department of Transportation

Information Systems at NCCIPS

### Department of Interior

U.S. Geological Survey (USGS), Hydrologic Instrumentation Facility

# Department of Homeland Security (DHS)

DHS Data Center 1
Immigration & Customs Enforcement (ICE)
United States Citizenship & Immigration Services (USCIS)

### **Government Publishing Office**

Passport Production Facility

### **Government Services Agency**

Information Systems at NCCIPS

### **NASA Stennis Space Center**

Advanced Technology and Technology Transfer Office

ASSURE 2014 – Intelligent System Division

FAA Restricted Airspace Expansion

NASA Rocket Propulsion Test Program

NASA Shared Services Center (NSSC)

National Center for Critical Information Processing & Storage (NCCIPS)

## Center for Higher Learning

Mississippi State University
Pearl River Community College
University of Mississippi
University of New Orleans
University of Southern Mississippi

### Mississippi State University

Alliance for System Safety of UAS through Research Excellence (ASSURE)

Northern Gulf Institute

### State of Mississippi

Enterprise for Innovative Geospatial Solutions

Marine Industries Science & Technology (MIST) Cluster

Mississippi Enterprise for Technology (MSET)

National Oceans & Applications Research Center (NOARC)

### University of Southern Mississippi

Dept. of Marine Science

#### State of Louisiana

Louisiana Business & Technology Center - LSU

Louisiana Technology Transfer Office

#### Contractors

A<sup>2</sup>Research
ASRC Federal
Booz Allen Hamilton
CRSA
Deltha Corporation

General Dynamics Information Technology (GDIT)

ISS Action

Lockheed Martin

**NAVAR** 

Northrup Grumman

Pacific Architects and Engineers (PAE)

Pinnacle Solutions

Science Applications International Corporation

Science Systems and Applications Inc.

Syncom Space Services (S3)

Vencore Services & Solutions

### **Commercial Companies**

Aerojet Rocketdyne
Lockheed Martin IS & GS Defense Systems
Power Dynamics
Rolls Royce North America

